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Flexible Employment Policies and Working Conditions

Germany

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EUROPEAN FOUNDATION

for the Improvement of Living and Working Conditions

1. Summary and discussion

The research findings concerning the connection between flexible employment policies and working conditions that are presented and discussed in this report are based on the re-analysis of research results from sociological studies conducted by ISF Munich that have already been concluded, as well as ongoing projects. This work draws on company case studies backed by supplementary short case studies and interviews held with experts from the case study companies involved.

Research focused on the context of developments, as well as case studies in two economic sectors in which aspects of restructuring company in-house and supra-company production and supply processes are the center of attention, namely the automotive supplier industry and the food retail trade. The corporate strategies are aimed at achieving greater flexibility of the inter-company processes as well as the in-house work sequences and forms of personnel deployment. This is associated with changes in work and working hour organization and changes in work and qualifications demands and requirements throughout the entire value creation chain. The analysis of the results follows the framework developed by TNO and is oriented as closely as possible to the questions prioritized at the researcher meetings.

Initially, the research findings bear out the fact that flexibility demands are very high in both sectors. They also indicate that companies command or have created considerable scope – and apparently adequate scope in the companies investigated – to take measures of flexible employment, personnel deployment and outsourcing. These measures serve short-term as well as long-term flexibility objectives.

The latitudes for flexible employment policies in companies are for one determined by the web and framework of general government and collective bargaining policy conditions (government labor market and social policies, occupational health and safety and working hour laws, the educational system, collective agreements, etc.). In this context the ongoing debates over the past years and the individual measures pertaining to the deregulation of employee protection regulations and new forms of the „pact for jobs“ and employment pacts formed between industrial partners and political instances are of particular significance. Other deregulation issues such as the extended shop opening hours are also relevant here. In view of the high and increasing unemployment figures in Germany that have persisted for years, discussions on the development of working conditions have been more concerned with issues of employment security, saving and creating jobs and less with the quality of jobs. Accordingly, the employment of job-seekers in qualitatively lower grade positions with wages below the collectively bargained levels and precarious employment and work conditions are being discussed as a new employment policy option.

Thus company employment and personnel policies and the development of working conditions in Germany have been extensively dealt with since many years in the political and academic discussions on human resources management. The question as to their relationship plays a considerably less significant role in company practice: the reason for this lies in the general conditions and preconditions of employment policies on the corporate level. The design of working conditions is more strongly determined by company restructuring measures and new technical-organizational developments as response to changing market and competitive conditions. Thus employment and personnel policies are usually more a type of personnel-linked adaptation policy to the premises and demands of the current rationalization

activities of the respective companies. The potential for taking influence on the employment and labor conditions is limited in the majority of companies. In addition, personnel policies are always of a short term orientation given the priority of market requirements and rationalization measures.

Flexibility issues remain a topic of controversial debate on both sides of the industry: while the inadequate flexibility of the national labor market is criticized on the one hand, the company side is faulted for not making adequate use of the existing scope for flexibility.

(1) The results of the case studies indicate that the companies apparently command sufficient latitudes in actual practices and in terms of general conditions in order to realized their flexibility concepts. From a medium term perspective the measures of outsourcing/subcontracting and the utilization of temporary employment are predominant issues in the automotive supplier industry. From a short-term standpoint, but also over the long term, internal flexibility potentials in personnel utilization on the basis of respective working hour and shift models and overtime regulations have long been regarded as key preconditions. In the food retail sector internal quantitative flexibility in the form of flexible shift work, part-time work and the deployment of marginal part-time workers and overtime to deal with fluctuating work volume and to cope with extended sales opening hours are decisive factors.

Generally it can be assumed that the practiced flexibility concepts, especially the internally and externally oriented measures augment each other with the aim of pursuing short term as well as long term flexibility objectives in an appropriate manner. Although both sectors emphasized the significance of functional flexibility for the sustainable performance capacity and adaptability of the companies, it is apparent that the creation and utilization of such potentials tend to be neglected in actual practice.

(2) The connections between corporate flexibility policies and the working conditions especially with regard to certain employee groups, have little impact on concrete occupational safety and health protection aspects. This is primarily attributable to the fact that health and safety policies in all case study companies are pursued independent of employment policies. Therefore these policies are basically applied to a more or less equal extent to all jobs and workplaces, whether full-time or part-time employees, or even the temporary or loan workers in the same work processes.

Within the context of the flexibilization processes working conditions are generally characterized by increased performance pressure and the rising unpredictability of working hours. Therefore flexibility induced burdens and stress combine with precarious working conditions and the highly flexible deployment of part-time workers and above all marginal part-time workers. In this area, gender specific discrimination arises as the share of females is especially high in these employee groups. The same applies to the group of temporary workers and loan workers who are expected to prove their willingness and capabilities for flexible work performance. Corporate flexibility policies are likely to entail discrimination above all for the employees in outsourcing or subcontracting companies whose employment and working conditions are usually far more unfavorable than those in the client companies.

Generally, the new working hour models practiced by companies are hardly subject to social regulation in their diversity and application: they are either agreed with the works council members with reference to the highly flexible company requirements, and partially adopted

outside of collective bargaining regulations, or individually agreed with members of staff in many cases.

Basically, the direct or indirect influence of employees on the respective decision making processes can be assumed to be comparatively low; in addition, many part-time workers and marginal part-time workers who have been hired for such short term flexibility reasons, have particularly limited participation opportunities.

(3) The general effects of flexible employment and working hour policies can be recorded in terms of the increasing use of part-time workers, marginal part-time workers and third party companies (subcontracting, outsourcing). As a result, the unlimited, full-time employment relationship that has determined the labor market to date has continued to lose a considerable share of its former significance. Over and beyond this, the share of jobs in the manufacturing sector, especially low-skill positions, is generally declining. The introduction of flexible working hour models with annual working time accounts also engenders labor market stabilizing effects by curbing staff cutbacks, fluctuation and short-time work.

General impulses could result from the systematic utilization of temporary and loan workers, a development that is currently not to be underestimated in the automotive supplier sector. Only in individual cases, however, will loan and temporary work act as a „bridge“ to permanent employment in a client company in view of the fact that temporary work, as often the case with subcontracting, is primarily regarded as a medium-term capacity buffer.

Basically the increasing utilization of loan and temporary work and the high share of marginal part-time workers indicates that a significant low-wage area has already become established on this basis in the German labor market. The case studies provided no indication of such forms of employment assuming a bridge function. The gender-specific segmentation of the labor market sectors in terms of part-time workers and marginal part-time workers is not to be overlooked.

(4) In both sectors the industrial relations play an important role for the relationship between flexibility and working conditions – albeit one that is strongly declining in individual sub-sectors. On the one hand the collectively bargained flexibility options have been markedly extended over the last years. In view of externally dictated production and delivery constraints the works councils have adopted a generous policy in agreeing to flexible working hour and shift models and approving overtime. Moreover, employee interest representation instances have been pursuing a course of mutual concession bargaining with the aim of securing the quality of working conditions to date for all employee groups. Above all, attempts are made to conclude agreements on rules for a minimum planning scope of working hours, for time-based or financial compensation of additional work, etc., or even for partial self-determination in time planning – at least on an informal basis.

In companies with weak employee interest representation or completely without formal interest representation working hour regulations and precarious employment relationships are largely determined individually between management and employees; employee participation, especially the consideration of individual interests, is particularly deficient. It goes without saying that this applies all the more so to loan employees and the members of subcontracting firms.

All in all, the position of union employee interest representation is more a defensive one in terms of flexibility and working conditions. This is also reflected by the numerous „employment pacts“ concluded on a company level or the special collective bargaining agreements concluded between companies and unions (Seifert 1999).

(5) A few general conclusions can be drawn with regard to starting points and intervention possibilities for designing employment flexibility that would also afford greater job security and better working conditions for the persons involved. Flexible human resources deployment should unfold within a certain framework of regulations, that enable adequate company and department specific flexibility, but also give due consideration to a minimum of individual employee interests in setting working hours and work deployment. These regulations could be implemented on the basis of special company agreements or within the context of certain working hour models or forms of work organization entailing partial self-determined planning. If the development of qualitative-functional flexibility through company further training or innovative work organization measures would accompanying the short-term orientation of many flexibility strategies it would be possible to achieve more continuity and alternatives in human resource policies. Moreover, relevant government, especially social policies intervention measures should be examined in terms of the focus and scope of their effects. In addition, support should be given to supra-company level cooperation activities that could help to reduce the flexibility pressure throughout the value creation chain. This could open up greater latitudes for employment and human resource policies oriented to more stable and qualified personnel structures, also in the interest of employees in precarious employment relationships.

2. National context

2.1 General conditions and national debates

(1) The influences on and scope for company employment and personnel policies result from the external web of general economic and government conditions, including labor market policy and collective agreements. The developments in Germany were strongly shaped by the fact that economic growth in the nineties was not sufficient to generate an adequately strong demand for labor against the background of a rising number of unemployed persons. The increase in unemployment was aggravated by the increase in the number of gainfully employed persons, the loss of many jobs in the „new“ Federal States (since 1990) and the increased taxation (also for social security) that is accompanying German unification (IAB 10/1998, p. 10). Accordingly, unemployment soared from a mere 5 % in 1990 (West Germany only) to over 11 % in the year 1998 (including the new Federal States) corresponding to about 4,4 million persons. At 17 %, the unemployment rate in the new Federal States is almost twice as high as in former West Germany (9 %). All in all, the number of missing jobs for the unemployed and a „dormant“ reservoir of non-registered job seekers is currently estimated on a very higher level at between 6 and 7 million persons. Given the current general economic conditions higher sustained growth can not be assumed in the near future. Therefore measures targeted at reducing unemployment are directly generally more towards measures reducing the current volume of employed persons (by offering extended training, early pensioning schemes, etc.) and redistributing work (shorter working hours, part-time work), as well as improving conditions for stimulating demand (reduction of labour costs, increase of income) throughout all sectors of the economy.

(2) In Germany, this economic development has been accompanied by two major trends:

- On the one hand there is the long-standing discussion on deregulation, especially of government and collectively agreed employee protection regulations (the key words here are protection against unwarranted termination, restriction of social security benefits for the unemployed, low-wage employment, etc.) that has also resulted in a number of changes in government and collectively agreed employee protection regulations (see below). At present, such questions are subject of reflections to a reform program, drafted by advisers of the new government that came to power at the end of 1998 (Streeck, Heinze 1999). Other extensively discussed deregulation issues such as extended shop opening hours or the liberalization of commercial traffic play a significant role in this context, too.
- On the other hand there are the so-called „Standort“ issues (Standort, i.e. Germany as an industrial location) that have been discussed in scientific and industrial circles over the past years. Apart from the aspect of adequate labor market flexibility, the main points here consist of reducing employee and corporate tax burdens including a host of initiatives geared to reducing the burdens of taxation and indirect labor costs. These debates were conducted against the background of the discussions on whether the right economic policy course should be oriented to supply-side or demand-side concepts (cf. Priewe, 1999).

(3) In this context, political action was demanded taken in the form of active employment policy measures, especially addressing the critical employment situation in the new Federal States; whereby some of these measures were anticipatory and entailed considerable efforts in

the areas of further vocational training, retraining, interim benefits and compensation for various age groups, specific forms of short-time work, etc. In the meantime, however, these measures have been significantly reduced in the new Federal States, although some individual measures have been finding increasing use, also throughout all Federal States (BMAS, 1998).

But a number of laws were passed with the aim of stimulating growth and employment, and reforming employment promotion (in 1994, 1996, 1997), too. Some of these changes amended existing employee relevant regulations, while others had a restrictive effect. From the standpoint of the policy makers involved, these measures were geared to reducing employment dampening regulations, consolidating the rising financial burdens shouldered by the Federal Employment Office, while placing a stronger obligation on unemployed persons to seek employment and take on acceptable positions.

The new government reversed a number of these regulations such as those in the area of dismissal protection or continued wage payments in the case of sickness. In addition, a number of corrections were adopted in social security that should be of considerable significance for company flexibility latitudes. The development of these corrections, however, were not yet discernible at the time this report was being drawn up (cf. 4. Conclusions).

(4) Apart from these general trends in legislation various initiatives were taken on the general economical level with the objective of forming a social pact between the government and social partners in order to reduce unemployment and improve the conditions of Germany as an industrial location (Standort); all of these initiatives have failed to date, with the exception of the various activities undertaken by governments and industrial partners on the Federal State level (such as the employment pact concluded in Bavaria) that have attempted on a regional level to implement individual measures that would ensure more favorable conditions for companies and job-seekers alike. In the meantime the new government has undertaken a new initiative, albeit beset with many difficulties, in this direction that has not yet yielded any concrete results; in this context, collective policy discussions concerned with various instruments and solution concepts include the introduction of government subsidized low wage bracket jobs and the introduction of government backed, so-called combi-wages.

(5) In general scientific and political discussions it is widely held that the labor legislation and collectively bargained framework in Germany represents a serious obstacle to flexible employment and labor deployment policies. In the meantime the collectively agreed latitudes for flexible labor deployment have been appreciably extended (for instance the raising or lowering of the average weekly working time between 40 and 30 hours, the distribution of the weekly working time over the period of one year, etc.; Matthies et al. 1994)). The flexibility question remains a topic of heated dispute between the industrial partners. While the employer side continues to criticize the remaining inadequate flexibility of the national labor market, the unions contest that companies make far too little use of the existing scope for flexibility. Especially with this regard, the case studies provide some important insights (see below).

(6) Employment agencies as are encountered in other countries are practically non-existent in Germany; in the meantime the government monopoly on labor exchange has been loosened and private employment agencies have become active on the labor market. As opposed to the booming temporary agencies, the effects of these private employment agencies are negligible. Temporary agencies are exclusively privately organized and have not drawn on government start-up funds or risk financing. Today, these agencies represent a significant factor for

companies to meet their flexibility requirements by the external hiring of temporary employees (see below); between 1987 and 1998 the number of temporary agencies rose from 511 to 3900 companies and the annual number of employees placed increased from 73,000 to 213,000 (Deckstein, 1999). In the meantime, there are also first indications of the emergence of employee pools in the form of non-profit making manpower placement organizations, for example in German maritime ports; these pools are not only geared to providing their members with a long-term solution to the high and sudden fluctuations in labor demand that occur in port operations, for example, but also pursue the aim of promoting the reintegration of unemployed persons into regular working relationships (Weinkopf, 1996).

(7) In view of the high unemployment new employment policy approaches are also being advanced on the meso-level: especially regional cooperation networks consisting of companies, collective bargaining partners, research and scientific facilities, municipalities and Federal State governments are seeking to create the preconditions for meeting flexibility and innovation requirements as well as securing employment and creating new jobs.

(8) The highly developed and differentiated educational and vocational training system in place in Germany represents an important framework for the development of the labor market. While the trend towards increasingly higher qualification remains unbroken, it is counteracted by the fact that the employment opportunities in the lower qualification groups diverge widely from those in the upper brackets, especially in the new Federal States. As general rule, the lower the formal vocational qualifications, the poorer the position on the labor market; this applies all the more so to unskilled employees, who account for one quarter of the unemployed in the western Federal States, and half of the job seekers in the eastern Federal States (IAB 15/1998). Therefore the placement of less qualified persons is regarded as an important employment policy option. Here, the relatively differentiated structure of employee qualifications and special entry and low-wage groups laid down in the collective agreements offer far more scope for flexibility with regard to the differentiation of labor conditions and remuneration than is often assumed (IAB 10/1998).

(9) Against this background, a general employment policy trend towards an erosion of the normal employee-employer relationship, i.e. unlimited regular full-time employment, is discernible. On the one hand the share of part-time employees and persons holding low-wage jobs (the so-called „Geringfügig Beschäftigte“ with less than 15 hours weekly and up to DM 630 per month) has increased steadily (Walwei, Werner, 1995) and has reached a substantial level in the meantime); on the other hand the consistently evident corporate strategy trend towards outsourcing and sub-contracting has not only boosted the shift towards company decentralization and a rising number of small size companies, but has also contributed to a considerable increase in the number of self-employed persons, a development that is often discussed in Germany under the heading of „quasi or pro forma self-employed“ individuals.

Between 1985 and 1996, the share of part-time work (every form of weekly work amounting to less than 36 hours) in Germany rose incrementally from 10.8 % to 22.9 % of all persons gainfully employed. This figure includes 1.5 % in the form of persons holding fixed duration contracts or temporary employees, and an additional 4.2 % in the form of marginal part-time workers. By contrast, the share of full-time employees has declined from 76.9 % to 65.9 %, of which in turn some 3.3 % were active as persons with fixed duration contracts or temporary workers (IAB 2/1998). In the meantime, estimates go so far as to state the share of female temporary workers at 35 % and the share of male temporary workers at 4 % (*Süddeutsche Zeitung*, March 22, 1999). The increased volume of marginal part-time workers differs very

considerably according to polling technique (IAB 9/1998), although there can be no doubt as to the tremendous increase in this form of employment in Germany. The number of such employees is currently estimated at between 2 and 5 million, whereby this figure also contains numerous persons holding dual jobs. Here too, it must be emphasized that the share of women among part-time workers is high and especially high among the group of marginal part-time workers: already in 1996, some 40 % of all gainfully employed persons were female, and in 1997 women accounted for three quarters of the marginal part-time workers of which almost four fifth were employed in the service sector (IAB 9/1998).

Between 1985 and 1996 the number of self-employed persons among the total number of gainfully employed individuals (without the agricultural sector) rose from 8.1 % to 9.5 %, a trend that has certainly gained a great deal of momentum in the meantime driven by a rising number of business start-ups facilitated by various forms of assistance, but also by the growing number of so-called quasi or pro forma self-employed persons driven by consistently strong outsourcing and subcontracting processes throughout the economy. For 1994, their number was estimated at between 179,000 and 431,000 (IAB 2/1998); particularly, the number of self-employed without employees has moved upward from 2,9 % in 1985 to 4,1 % in 1996.

(10) In conclusion, it can be stated that the „paragon nation of short working hours“ (NRI, 1992) has for some time been undergoing a shift from normal, standardized employment forms to more flexible employment (Bellmann u.a. 1996) and to more shorter, individual working periods, mostly in the form of part-time work performed mainly by female employees (Lehndorff, 1998).

2.2 Description of the cases

Case studies were conducted in two sectors of the economy in which aspects of restructuring in-house and supra-company production and delivery processes and the associated forms of flexibilizing work sequences and personnel deployment are prominent elements. These developments are associated with changes in work and work organization, as well as changes in work, qualification and skills requirements. The two sectors investigated at the:

- automotive supplier industry, and the
- food retail trade.

2.2.1 The case studies in the automotive supplier industry

(1) The automotive supplier sector, currently comprising some 650,000 employees and thereby accounting for around 2 % of all gainfully employed persons, was traditionally not regarded as an separate economic sector. All of the companies in the automotive supplier „branch“ can be allocated to individual sub-branches in the original meaning (such as electrical, plastics, foundry, etc.) and are therefore also characterized by different company traditions and process conditions. The exact number of the companies that can be termed as suppliers to the automotive industry is highly unclear and thus the number of all employees dependent on the automotive supply trade (in the Federal State of Bavaria an estimated 120,000 employees translating as 10 % of the total number of gainfully employed persons are active in the automotive supplier sector).

All suppliers to the automotive industry are apparently confronted with similar problems. As manufacturer of products that still have to be built in to a final product they are tied into

increasingly closely integrated production networks. In this context the companies are operating on various levels of a more and more internationally determined supplier pyramid (Altmann, Sauer 1989; Deiß 1996).

The conditions under which suppliers must come to terms with the demands of their clients are characterized by worldwide competition and permanent client price pressure, continuously rising variant diversity, more and more frequent and irregular supplier requests, tighter delivery cycles and the continuous trend towards outsourcing and global sourcing; at the same time there is a burgeoning trend towards systems and modules and the internationalization of manufacturing. All in all there is a progressive reduction in the number of direct suppliers and increasing corporate concentration.

Highly flexible sequences are essential in dealing with these demands: this begins with the outsourcing of sub-processes and subcontracting to flexibly producing sub-suppliers to the setting up of pre-assembly facilities directly at the final assembly plants, while also comprising flexible human resource policies and personnel deployment policies in company-own locations and plants. In other words, a considerable share of flexibility is generated on levels over and beyond individual companies and locations. Therefore, in order to research the type and effects of flexibility strategies, it is not sufficient to merely investigate individual companies.

The industrial relations in this sector primarily follow the structures of dual interest representation practiced in Germany, but may differ widely. Different industrial unions are responsible for individual companies and accordingly, the levels of unionization may be high (metal-working companies, for example) or lower (chemicals, wood and plastics). While the works councils – a standard institution in Germany – are present in the large supplier companies or in companies that are part of a corporate group, there are an increasing number of smaller supplier firms in which a body similar to works councils has been set up or where there are no works councils at all.

The automotive supplier industry as a network of companies integrated into production chains represents a case study of its own. The aim here was to record, out of this complex web of flexibility problems and network solution potentials, individual company flexibility measures in an exemplary form. To this end, a few typical, but not necessarily representative findings on generally valid patterns of employment policy flexibility on company level will be presented. These findings were obtained from three additionally conducted short case studies in three supplier companies.

(2) The companies investigated as brief case studies consist of two companies belonging to international corporate groups producing plastic tanks and cables respectively, and one *Mittelstand* supplier of technical vehicular parts. The first two companies are producing almost 100 % of their products for the automotive industry, while two thirds of the production volume of the third company is earmarked for the automotive industry. The two group companies are currently employing 1350 and 300 persons at their locations, while the manufacturer of technical vehicle parts employs a workforce of just under 200 members of staff. At the cable supplier there are still numerous labor-intensive cables, especially in wiring harness assembly, and this company has in the meantime relocated three fifth of its former production capacity to closely monitored foreign sub-supplier. The plastics tank manufacturer operating highly automated production facilities. Due to the incremental outsourcing to external pre-assembly locations at client final assembly sites the share of assembly work is

decreasing. Both supplier companies act as JIT suppliers and are subject to high flexibility pressure exerted by their clients.

The *Mittelstand* supplier of technical vehicle products is maintaining highly automated assembly production. The workforce consists of a 55% share of female employees and a 60% share of part-time workers; the share of women is especially high in the manufacturing area (75%) and among the part-time workers (80%). The two other companies differ here again from the above in two important points: the electrical supplier also exhibits a high share of female workers at about two thirds of the workforce, while the share of part-time workers is only 27 % and loan employees account for one sixth of the workforce. At the plastic tank manufacturer women account for only 5% of staff and part-time workers also total a mere 5%.

The interest representation structures differ widely. The organization level at the cable manufacturer is at 15%, while the degree of unionization in the plastics company is stated at 40% (after 75% two years ago). In both companies a works council is in place. In the third case study company a trust *gremium* was formed without codetermination rights. In this company unionization is practically non-existent.

2.2.2 The case study in the food retail sector

(1) The food retail sector is one of the most significant sectors in the German services and retail branch. Sales volume is around 131 thousand millions EURO (1997) and the total number of persons employed is around 850,000 (1996) accounting for one third of the retail area and just under 2.5 % of all gainfully employed persons. The food retail sector has long been characterized by progressive corporate concentration and recently by fierce price competition while the sales have been stagnating or declining since a number of years. In order to bolster their market position the major retailer chains and corporations are pursuing internationalization strategies in order to stake out a share of individual European markets, while also procuring a rising share of goods from abroad. On the domestic market players find themselves increasingly confronted with competition from foreign food retailers. In addition, divestments, sell-outs and takeovers are the order of the day in this branch.

In view of the low automation and technology level to date, the utilization of information technologies for the improvement of internal and supra-company information flows and logistics sequences is advancing at a rapid pace. Technical and organization changes are concentrating especially on the incremental rationalization of labor intensive sequences in the warehouses and outlets. This has decided effects on the employment and working situation of the workforces. The companies and outlets are challenged by tremendous – often daily and seasonal – fluctuations in work volume. Therefore flexibility in personnel deployment is a crucial requirement. Accordingly, part time work has been a rising trend in the food retail sector since many years (cf. Köpke 1992). The share of part-time workers in the sector of the retail branch with the emphasis on food products accounts for 60 % of all employees according to the 1997 annual abstract of statistics (Statistisches Jahrbuch).

At least in the major retail chains the industrial relations in the food retail sector are characterized by the dual interest representation structure practiced in Germany. At 15 %, unionization in the food retail branch is comparatively low.

(2) The case study company is one of the largest German corporations in this sector. The corporate group consisting of successively integrated retail chains and other companies as well as dynamically built up individual chains and comprises various commercial areas, sales

channels and production plants. The food sector, however, still accounts for 89 % of total sales. The past years were marked by the foundation and take over of international subsidiaries in various European countries so that the corporate group now employs over 160,000 persons in Europe (converted to full-time positions) active in numerous branches with a total of 11,000 outlets. In Germany alone the corporation is operating around ten branches with central warehouses and just under 10,000 outlets and is employing a workforce of 175,000 employees (corresponding to around 130,000 fulltime jobs), of which 500 are trainees.

These corporate policy expansion activities are contrasted by various rationalization strategies and supra-company level cooperation activities that address the entire chain from manufacturers to the transport companies and extend to the central warehouses and the individual outlets. The above generates considerable employment policy effects above all for those parts of the chain, that are covered by the corporate group itself, i.e. primarily the central warehouses and the outlets and supermarkets. The sequences on the supra-company level, however, are not as tightly organized and integrated by information technologies as in the automotive sector.

The specific conditions of the respective branches differ considerably according to history and regional location. This applies to their technical facilities as well as their work organizational structures. Nevertheless, the flexibility problems are similar throughout the entire organization and the strategies pursued run more or less in the same direction. At the branch investigated in greater detail (with a total of 15,000 employees) around 37 % of the workforce are part-time employees and 36 % marginal part-time workers; these two groups account for around 57 % of full-time working volume while the remaining 27 % is covered by full-time employees.

2.3 Description of the research methods employed

The findings presented in this report are based on the re-analysis of research results gained from completed and ongoing sociological investigations conducted by ISF Munich on the basis of company case studies as well as supplementary short case studies and interviews held with experts from the companies involved in the case studies.

2.3.1 The automotive supplier industry

The case study on the suppliers to the automotive industry is based on findings from several government funded research projects conducted by ISF Munich in the last 10 years that covered a large number of supplier companies from the metal-working, plastics processing and electrotechnical branches. These companies are integrated into increasingly tighter production networks and, in view of severe rationalization and innovation pressure, have increasingly taken employment policy relevant measures geared to reorganizing and flexibilizing their production processes, including their company, personnel and work structures.

The research conducted was concerned with supra-company rationalization measures, quality management within production networks, internationalization activities in the automotive supplier industry, the significance of small and medium size enterprises (SME) within the automobile supplier industry and the associated effects on employment and work in the supplier companies. Apart from material analyses and topic specific polling, numerous interviews were conducted with managing directors (senior executives) and plant managers at

system suppliers, component suppliers and sub-suppliers – partially from the same supplier chain; in addition, experts from the human resources, quality management and logistics areas were involved, as well as persons active in research and development, works council members and occupational safety experts, members of middle management and experts from unions and employer associations. The secondary analyses focused on the flexibility strategies pursued by these companies within the context of their restructuring measures and the associated consequences for employment and personnel deployment and the design of work and qualification structures.

In order to augment and bring the findings up to date, short case studies were conducted at three supplier firms from different branches and included interviews with plant managers, senior personnel managers and works council members. In doing so, special attention was given to the potentials and objectives of various flexibility measures such as outsourcing, temporary work, group work etc., and the ensuing effects on employment and work conditions.

2.3.2 The food retail sector

The findings from the case study in the foods retail sector are also based on an ongoing sociological research project that will span a three year period and is publicly funded. The project concentrates on the analysis of the reorganization of sequences and the optimization of interfaces in the food retail value creation chain under the perspective of logistics and occupational safety and health protection. The main focus is on the supra-company level cooperation activities of the companies participating in the entire chain: this involves a number of manufacturers and transport companies, as well as corporate headquarters, various branches and individual outlets of the retail group described. Here, the retail group's employment and personnel policy played a central role in coping with the flexibility problems arising or generated within the chain. In this context the results of this case study are based on relevant findings on flexibility strategies, working hour and labor deployment policies and the associated repercussions on qualification requirements and labor conditions. In terms of the methods employed, the case study draws mainly on qualitative interviews, apart from the analysis of relevant material (branch and corporate statistics, etc.), process observation and company internal quantitative surveys (on marginal part-time work).

Interviews were conducted with numerous experts from various companies throughout the logistics chain, especially with managers from various departments at corporate headquarters and from four branches, personnel managers and occupational safety representatives, central works council members, works council members at four branches and union members, market managers, representatives of third party companies and personnel on the office and the executing level at the central warehouse. In addition, interviews were conducted with representatives of vocational associations and industrial associations.

3. Details on the research findings

The analysis of the findings followed the framework developed by TNO and is oriented as far as possible to the questions prioritized in the minutes of the research meetings. As a supplementary measure, attention will be given to flexibility aspects on the supra-company level and the significance of technological flexibility.

3.1 Flexibility types and corporate policies

3.1.1 The automotive supplier industry

(1) In spite of different basic conditions and flexibility potentials, there is one aspect that consistently applies to the parts suppliers integrated into tightly woven production networks: as players and links in the value chain of the automobile industry they are confronted by resulting flexibility demands in their positions as components or building blocks of the flexible mass production system organized and controlled by the automobile manufacturers (Sauer, 1992), but also as individual companies. Therefore the effects of flexibilization concepts realized throughout and over and above the entire production chain are resulting in polarization and segmentation effects within the chain between companies holding different positions, but also as the consequences of individual company demands on the respective flexibility requirements. In order to adequately record the effects of supra-company flexibilization processes, a comprehensive analysis of complete production networks is called for. Respective sociological analyses have shown that the supra-company level rationalization strategies of automotive manufacturers have increasingly shifted the basic cost cutting/flexibility problem of industrial production formerly characterized by a high degree of division of labor to the entire value creation chain, thereby solving the respective problems: flexible and close cooperation of the companies involved in the chain in the areas of development, manufacturing and logistics enables a more rapid, flexible, innovative and cost-efficient response to changing sales market demand structures. In the process, the system and direct suppliers to the automobile manufacturers extend the manufacturers' rationalization strategies to their sub-suppliers, thereby driving them further into the supply chain with the help of their own respective procurement strategies (Altmann, Deiß 1998).

(2) The effects of such rationalization and reorganization concepts for companies and employees are naturally heterogeneous, for the aim of such strategies is to utilize different company preconditions in the interest of enhancing the total efficiency of the value creation chain. Consequently segmentation and a structural differentiation of labor standards will arise within the chain: human resource problems (hiring, personnel) and employment risks are shifted to weaker companies within the chain, while the demands made on the availability and flexibility of human labor increase overall considerably. The rise in precarious employment relationships and the flexibilization of working hour structures and individual working hours is consistently in evidence. This increase, however, impacts different companies to a varying degree, according to the extent to which the companies must yield to the demands of their most powerful suppliers. It would certainly be expedient to research such flexibilization effects to a greater extent as they are associated with repercussions on the upstream and downstream value creation chain. Given their relatively low-priority position, however, such effects are hardly likely to become the object of research or respective case studies.

A study conducted around the mid-nineties had already provided clear indication of marked differences in terms of working conditions and health and occupational safety between

suppliers or service providers on various levels of the supply chain (Deiß, 1994); these questions can not be dealt with in the context of this report, however.

The supplementary short case studies conducted provide at best individual starting points, from which only exemplary indications towards the flexibility strategies of the individual companies can be derived, but hardly generally valid information concerning the patterns of employment policy flexibility in actual practice.

(3) Basically speaking the general pressure on supplier flexibility in the production networks is becoming above all evident: In all three cases under investigation company policy is geared to undertaking everything possible to meet the demands and requirements of the automotive industry, whether in final assembly plants, or as system suppliers. In product development as well as in manufacturing and logistics the aim is to be able to provide the required services and supplier parts as short-term and cost-efficiently as possible with the help of the necessary flexible personnel policies. In achieving these objectives the dependent companies are considerably restricted by the guidelines defined by their corporate headquarters. Their personnel policies are restricted in the form of demands for employment freezes and staff reductions, longer working hours without additional compensation, etc. on which local management has no influence. Such corporate headquarter demands are exclusively determined by short-term oriented economic and managerial concepts and pose an obstacle to companies' medium term investments in personnel and employee qualifications.

Apparently employment policies do not represent an element of global corporate strategies, or at best under the aspect of reducing personnel costs. The short-term orientation and „myopia“ of such corporate policy guidelines have elicited criticism on the part of local managers. This trend is partially countered by attempts made on the individual company level to utilize the remaining latitudes for the implementation of measures that would enhance longer-term functional flexibility: in all case study companies a minimum of vocational further training activities were practiced that were accessible to the majority of the workforce; experiments with new forms of work organization were also conducted in order to build up a certain degree of operational flexibility for the major share of the workforce. The policies at the third company investigated, an independent *Mittelstand* stood in contrast to the two dependent companies: here – in spite of a decidedly restrictive company policy trend in wage and employee interest representation issues – the personnel policy focus was on creating internal and long-term oriented flexibility. This resulted in the introduction of group work with polyvalent staff, a limited degree of self-determined scheduling in manufacturing and an appreciable investment volume in R&D know-how (10 % of sales!) geared to creating product and development flexibility.

(4) Apart from such aspects of internal qualitative/functional flexibility, the companies in the automotive supplier industry are primarily pursuing external qualitative as well as various quantitative oriented flexibility strategies. In the companies surveyed the focus was on outsourcing measures and the employment of temporary workers; in view of their dependence on the automobile manufacturers the significant utilization of internal qualitative flexibility has long been part of everyday operations at supplier companies. In spite of their contribution to short-term handling of unpredicted order volume peaks – both external flexibility concepts are geared to primarily securing longer-term flexibility; in this way, supplier firms will be able to ensure the flexible provision of cost-efficiently manufactured systems and modules as demanded by automobile manufacturers and hold their own in worldwide competition.

For this reason the cable manufacturer has in the meantime relocated up to four fifth of the former production volume to lower cost foreign locations. The company remains the system supplier responsible for providing the entire wiring harness and cables and is responsible to the automobile manufacturer for the high quality and flexible delivery by the sub-supplier. In order to compensate for this incremental capacity loss, the company built up a new, highly automated manufacturing system for stamped parts as well as incrementally increasing the share of service and support offerings catering to the needs of the client corporation's satellite plants. In the actual areas of cable production the utilization of temporary workers has created the possibility to adjust capacity over the medium term according to fluctuating client orders without having to make any changes in the core workforce. At the same time it was possible to meet the central corporate demand for an employment freeze.

In a similar manner the manufacturer of plastic tanks is striving to increase medium-term flexibility by shifting the assembly work for tanks supplied just-in-time to a customer to an independently organized external service provider; the manufacturer remains fully responsible for the work performed by the subcontracting firm, while the latter provides the necessary flexibility while offering more favorable personnel costs at the same time.

In the third case study, a basic high degree of flexibility is given by the fact that the company itself is only maintaining highly automated assembly operations, whereby all parts involved are flexibly provided by a group of sub-suppliers by way of a Kan-Ban System.

(5) As mentioned, these measures are geared less to the short-term securement of quantitative flexibility and are therefore extremely important for the relevant suppliers, even if they already command tremendous internal quantitative flexibility potentials to cope with short-term capacity utilization fluctuation. In this way, all of the companies have created adequate working hour related latitudes for internal, quantitative flexibility measures:

Flexible working hour models with flexi-time character for the administrative and management area as well as a broad range working hour models with part-time and full shifts, changing shifts and additional shifts with a large scope for additional overtime or reducing overtime, partially without separate wage benefits all play a role here. Moreover, in individual part areas of manufacturing night and weekend shifts enable the extension of operating hours to seven days in the week, thereby providing the companies with additional flexibility reserves. In two of the case study companies the standard weekly working hours were recently extended from 37.5 to 40 hours, creating additional personnel deployment scope in addition to cost saving effects. In one of the three cases the potential of homework was also tapped – although this has been considerable reduced in the meantime. The relatively high share of limited work contracts in another case is less geared to achieving personnel flexibility and is aimed at balancing out fluctuations in the manufacturing area caused by wage reductions and thereby increasing selection options in recruiting.

In all companies the internal, quantitative flexibility created by these different measures is regarded as absolutely essential for the viability of the company: only in this way is it possible to promptly meet the supply requirements of automobile manufacturers whose orders are placed on an irregular basis and fluctuate in terms of quantity, variants and delivery schedules – a situation that currently seems to be the rule for the majority of companies in the automotive supplier industry. In all three case study companies it was emphasized that the scope for flexibility generated by the outlined measures were fully sufficient in coping with the flexible demands of everyday manufacturing.

(6) However, the flexibility potentials afforded by part-time shifts and overtime hour buffers not only serve to cope with short-term demand and production fluctuations. Similar to the utilization of temporary workers overtime hour buffers also form a basis for medium-term survival in a flexible environment, especially in supplier companies who have cut their staff to extremely lean levels: by reducing over time hour buffers, they are able to respond to seasonal or longer declines in incoming orders without taking additional personnel policy flexibilization measures such as staff cut-backs or substituting full-time employees with part-time workers. Therefore in a number of individual areas in the companies under survey annual working hour accounts have been introduced so as to enable better planning and management of overtime hour buffers.

Especially in management and administrative areas, but also in a number of manufacturing areas, these latitudes have been extended by more or less autonomous forms of group work. Such groups are partially accorded a high share of self-determination in shaping and designing their working hours that can extend to the simple assignment of order batches to be executed on a weekly basis. Apart from the qualitative flexibility potentials of job enlargement and multi-tasking associated with these forms of work organization, the voluntary willingness to perform additional work and towards flexible work deployment are increased and possibilities created for the partial consideration of individual working hour needs.

Last but not least, additional working hours also serve to secure employment in supplier companies that are confronted with changing and uncertain market requirements, while also affording manufacturing employees with opportunities to improve their income.

(7) From an overall view the flexibility policies taken by the companies are mutually complementary in the interest of securing the longer-term survival of the company and the short-term fulfillment of changing customer demand requirements. In view of tight budgets, the emphasis of measures is on the area of quantitative and external qualitative flexibility. The case studies showed that such measures are not regarded as adequate to be able to cope with the adaptation requirements that will arise in the long term. To this end sustainable qualification efforts will have to be made as well as targeted measures to tie in qualified and experienced personnel to the company. Although such measures stand in contradiction to the short-term, mostly cost oriented guidelines, all case study companies more or less tended to provide, within their given frameworks, a minimum of training for the majority of the workforce, whether in the form of group work or job rotation, or by specific further training measures.

(8) Finally, attention must be called to the fact that companies, as far as economically possible, will be striving to further automate their processes and also utilize the potentials of technological flexibility. It must be emphasized that IT-integration, flexible data transmission and electronic data interchange (EDI) represent standard practice in the automotive supplier industry due to the production networks already in place.

Here we are referring to flexible production technologies whose utilization is dependent on the complexity of the given product and manufacturing structure. On the one hand, there are examples of flexible assembly technologies replacing manual flexibility. On the other hand, automation in the suppliers' production sequences may also result in various forms of rigidity and thereby generate an even greater need for personnel deployment flexibility. In any case it

became evident that automation is not only being pursued from direct cost reduction standpoints, but is also capable of reducing accident risks and work burdens.

(9) In all case study companies the health and safety policies tend to be pursued independently of employment policy. In most cases, these policies are practiced by local occupational safety and health protection management – partially according to general corporate guidelines – and is consistently oriented to requirements mandated by legislation. Accordingly, risk analyses are carried out on the basis of which preventive measures are taken, especially work place related instructions that are issued by occupational safety and safety experts. In one case employees were surveyed in cooperation with the local health insurance provider resulting in improvement suggestions being presented to management and the formation of health issue circles. Basically it was evident that occupational safety and health protection regulations are applied to full-time and part-time employees in an equal manner; they are also valid for temporary workers who are deployed to the same work processes and undergo the same in-house instruction procedure. Thus flexibility strategies have not resulted in differences in the practical application of occupational safety and health protection regulations.

3.1.2 The food retail sector

(1) In the retail chain investigated in the food retail sector corporate policy is – in spite of the relatively strong position of the branch outlets – mainly defined centrally, i.e. at headquarters with regard to the aspects of finances, cost/benefit results, investments and corporate organization. The annually targeted figures concerning turnover, profit contribution and cost savings are determined at company headquarters on the basis of pre-calculations conducted by the outlets and branches. The outlets enjoy relatively extensive autonomy in deciding how to attain the economic targets defined at headquarters. Therefore the decision-making scope in the individual supermarkets is relatively tight.

Viewed from this perspective, the influence of local management at the outlets on overall corporate strategy is modest. Theoretically the outlets have adequate scope in their personnel policies to realize the targets defined by headquarters and implement the personnel policy concepts developed there. In actual practice these possibilities are strongly limited by existing rationalization pressure and the trend to tight staffing so that certain generally advocated personnel concepts can not be adequately realized in everyday operations. In this way, personnel policies are frequently reduced to achieving savings and cutting back personnel costs, and providing adequate flexibility to cope with fluctuating work volume in warehouses or ensuring adequate capacity for dealing with the extended shopping hours in the outlets.

Here too, personnel policies are mainly reactive policies geared to coping with immediate, acute personnel – and cost – problems and contain only few active or anticipatory elements related to personnel deployment and qualifications in the meaning of human resource management. Given the large number of jobs with low qualification requirements there are until now relatively few further training activities; such measures concentrate mainly on employees who are the focus of certain company recruiting and selection interests, such as shop managers or qualified employees in the service departments. This orientation is not only reflected in the large number of unskilled and semi-skilled workers in these companies, but also by the fact that the learning on the job periods in the warehouses and markets are relatively short and that very few trained salespersons are hired for the supermarkets.

(2) In a relatively independent manner company headquarters and the outlets practice a systematic occupational safety and health protection policy that is less part of human resource

management and far more an independent corporate policy for the prevention of occupational accidents and work caused illness, thereby avoiding the costs arising for the company in this context. To this end various preventive measures, training and health relevant investigations over and beyond mandatory regulations are carried out on all levels, whereby the fact that the company has built up its own health insurance scheme.

(3) Against the outlined background, personnel policies on the branch and outlet level remain primarily limited to the task of ensuring adequately flexible personnel deployment by appropriate recruitment and the design of respective employment structures and employment contracts; the immediate personnel deployment planning is performed on site by the department and market managers. Accordingly, the flexibility strategies in the branches and outlets concentrate on creating internal quantitative flexibility by working hour and shift models, as well as an appropriate structure of employment relationships:

In the warehouses this entails primarily the development and organization of different shift work and working hour models in order to meet the respective flexibility requirements arising in supplying the markets with the items from the dry food range and the so-called fresh goods (such as fruit, vegetables and milk products) according to the respective delivery priorities. Naturally the need to provide the outlets with fresh goods in the early morning requires night shifts and weekend shifts on a regular basis. Over and beyond this, the working hour related company agreements specify adequate, relatively short term deployable options for additional shifts and overtime, as this is the only way that the daily fluctuations in delivery, packaging and fleet volumes can be promptly coped with. With the help of working hour models on the basis of individual years, partially with flexi-time elements, the outlets seek to introduce further flexibility enhancing and cost reducing variants, as in the form of work on demand as an internal, quantitative flexibility instrument.

In the outlets internal flexibility is primarily generated by the previously outlined structure consisting of a few full-time employees and a major share of part-time workers and marginal part-time workers. Thanks to the overlapping deployment of many part-time employees – whereby marginal part-time workers are primarily assigned to extended evening opening hours – it is ensured that in various areas of the outlets at least one member of staff is present over a period of 74 hours per week. This staffing would hardly be possible or incur higher personnel costs given a larger share of full-time and part-time workers. As already mentioned, over three quarters of employees in the supermarkets are part-time workers, whereby marginal part-time workers account for half of these persons. In addition, employees are obligated to put in regular overtime work and basically perform a share of the work on demands, an aspect that is explicitly agreed in the employment contracts of the sales staff in the supermarkets. These overtime hours are frequently only offset against free time or wage compensation after extended periods of time.

(4) In the warehouses and supermarkets these internal quantitative flexibility concepts are combined with a few other external quantitative and qualitative flexibility measures – although to a very limited extent. Seasonal temporary staff are rarely drawn on. In the warehouses, especially in the fleet area, there is a trend to assign transport companies as sub-contractors with the deliveries to the outlets and these sub-contractors now account for up to one third of the transport volume. The individual branch operations differ in this respect, whereby the fleet also relies on part-time drivers available on demand who comprised up to 10 % of the drivers in one case. This sub-contracting is understood more as flexibility potential for covering peak work periods, however, in the case of rising cost pressure it can

also serve as an option for formulating a latent threat to outsource a larger volume of the fleet in future. The same applies to the possibility of outsourcing packaging activities, an option that has been practiced only in few warehouses to date. Thus outsourcing/subcontracting represents an option less favored to date in this branch, but one that may enter into negotiation strategies at any time in the form of a threat. In the warehouses of other branches or in other enterprises of the food retail trade, subcontracting might be more common because of cost-saving reasons.

The supermarkets and outlets have also made little use of subcontracting so far. The utilization of external shelf filling crews is ubiquitous: these crews offer the outlets significant cost related and work organizational advantages. With their help delivered goods can be flexibly and economically placed in the shelves, often by third party companies and outside of shop opening hours so that the frequently understaffed supermarket personnel who are often under time pressure are freed from additionally performing these tasks. Such third-party companies almost always operate with marginal part-time workers who not only hold precarious work contracts, but also have to perform tasks that are especially burdening and health endangering in terms of occupational safety and health protection standpoints, without the legal protection that directly employed members of staff benefit from.

(5) All in all it is notable that in the food retail sector other potentials of external quantitative flexibility are less used as well as potentials of internal functional flexibility. The utilization of temporary workers provided by temporary agencies is marginal. Even limited employment contracts are rarely opted for; they may be the rule in new hiring, but less for flexibility reasons and more from the standpoint of personnel selection. Moreover, it would appear that many of the marginal part-time contracts offer the possibility of termination at short notice, as reflected by the relatively high fluctuation figures. This could also reflect the tendency that the tasks mainly performed by marginal part-time workers are less attractive over the long term due to their employment and working conditions. This could also be indicated by the fact that in the particularly tightly staffed discounter area of the retail chain investigated, the fluctuation among marginal part-time workers was considerably higher than in other sales outlets (up to 25 % over an average of 16 %). Precise figures and information were not available, however.

In these retail chains there are hardly starting points for group work. In any case, such and similar possibilities for the generation and utilization of internal qualitative flexibility are not pursued in a targeted manner; at best they are restricted to semi-skilled personnel shifting between the cash checkout and filling shelves, or warehouse personnel assigned with packaging tasks deployed to other warehouse areas for weekend shifts, for example. Even such measures are exceptions, however.

Nevertheless, one aspect must be emphasized: although personnel policies in the case study companies are oriented to exploiting the flexibility afforded by part-time work, marginal part-time work and outsourcing as best as possible, they are also geared to maintaining a certain continuity in the workforce and avoiding unduly high fluctuation rates; this is the reason that fixed duration employment contracts are not opted for to achieve flexibility, for in spite of high internal deployment flexibility, a certain stability in company tenure and employee experience should be maintained in the interest of the company, especially in view of the fact that the current concepts of increased service and customer orientation that contradicts extreme personnel flexibility and tight staffing, is once again gaining greater attention in the food retail sector.

(6) In the food retail sector with its labor intensive logistics and sales processes technological flexibility is beginning to play an increasingly greater role. Some companies have begun to substitute the storage functions performed manually at incoming goods with flexibly controlled automated systems. The extent to which such systems can be realized and are economically viable presupposes appropriate structures in the range of goods, the sales channels and warehouse layout.

IT-based technological innovations that are incrementally introduced are likely to prove relevant for flexibility issues:

This includes merchandise and inventory control systems paired with scanner technologies, whereby the ordering procedures between outlets and warehouses or the control of storing functions by the fork-lift drivers at the incoming goods area can be partially automated. Voucher-free packaging and labeling processes are also being tested in some instances. Thanks to such technologies the flexibility demands in the compiling, transfer and processing of information can be met with greater ease and speed than previously, and the employee input and communication involved can be partially replaced. On this basis, information on goods to be delivered, potential fault risks, etc. can be sent in advance to the instances involved, prior to the concrete logistics sequences; this affords the possibility to take timely measures in advance for altered sequences, potential peak work volume, but also for smoother and more continuous sequences between company and branch instances involved.

These technologies not only contain certain flexibility potentials, but can also be utilized to reduce flexibility requirements, especially the need for extreme personnel policy flexibility. Given the considerable input this entails, as well as presupposing trust-based forms of cooperation over and beyond individual companies, such forms of automation are still not relatively far advanced, especially with regard to the technical-organization networking and integration between retailers and suppliers.

3.2 Flexibility and working conditions

3.2.1 The automotive supplier industry

(1) On the individual company level in automotive supplier firms, immediate connections are hardly perceived between corporate flexibility policies and working conditions. With the exception of a few individual aspects, the working conditions are not regarded as problematic given the consistent adherence to occupational safety and health protection measures. The flexibility-relevant extended working hours without wage compensation are regarded as unfavorable in the individual companies, as this considerably depreciates the employee commitment and willingness to enhance flexibility.

In all companies the actual, concrete working conditions are decidedly characterized by high performance intensity as well as extreme time pressure and unpredictability in work given the fluctuating supply orders placed by customers. This applies especially to the production start-up phase in new automotive systems and modules that always takes place with a great deal of hectic and without adequate familiarization and training. In terms of physical work stress factors workers are subject to unfavorable temperature fluctuations, noise as well as onerous working positions (standing for prolonged periods, repetitive motion, overhead work). Accordingly, health complaints primarily related to the neck and shoulder regions as well as fatigue, headaches, and nervousness were registered at the wire harness supplier company.

(2) These stressful working conditions are further increased by certain flexibility strategies as employees are exposed to these ergonomic and mental strains for longer periods of time and therefore to a more severe degree given the demanded amount of overtime work. Special stress factors such as the rapid and schedule mandated handling of large work volumes, the unpredictable interruptions in work sequences, short-term changes in the position and duration of working hours are also caused by the utilization of internal flexibility and lastly induced by the discontinuous nature of incoming customer orders. All members of manufacturing personnel are equally affected by these burden and stress forms.

Similar burdens and stress are also increasingly felt in the management sector, that is also more and more strongly confronted with rapidly changing supplier demands made under high time pressure and impacting operations in the development departments, in quality management, etc. Here too, more overtime is called for and as well as more work on demand.

A specific connection between flexibility and working conditions arises in the risks caused by too short and inadequately conducted familiarization and learning processes. As the majority of interview partners confirmed, flexible work assignment frequently necessitated short-term relocation and assignment to unaccustomed workplaces that should normally be accompanied by learning and familiarization phases. Due to the time pressure in everyday manufacturing operations these conversion processes are handled far too rapidly and inadequately; as a result the effected employees are placed under particular strain and stress, not only because they are slow in achieving the normal performance level, but also because they are insecure and do not fully command their work and tasks and are therefore exposed to higher occupation accident risks.

(3) Gender-specific discrimination is discernible in this context in that the manufacturing operations of the cable and wiring harness company and the producer of automotive parts were mainly employing women. On the one hand, given their highly flexible deployment in the manufacturing area they are strongly affected by discontinuous work and the restrictions imposed by changing working hours; on the other hand, independent working hour planning by employees or staff groups in manufacturing will at least partially enable their individual needs to be better taken into consideration, insofar as effective participation opportunities have been defined.

Age-specific discrimination caused by flexibility measures is reflected by the aspect that older employees are more strongly affected by flexible work assignment than younger members of staff; conversely, older employees may to a certain extent hold more favorable employment contracts so that the burdens arising in connection with flexible work impact the younger employees to a greater degree who have not been employed at the company for such a longer period of time.

(4) As already mentioned, full-time and part-time workers in the supplier firms are equally affected by the well-known set of health problems (spinal complaints, accident risks, etc.) as well as by the new health risks caused by performance pressure and hectic work operations. In the various companies surveyed, flexibility strategies resulted in problems that hardly differed according employee status, with the exception of managerial and administrative personnel who are less exposed to concrete risks stemming from the work environment and the work processes.

Accordingly the personnel policies in the companies surveyed should show no indications for a differentiation between a core and peripheral workforce. This also applies for the temporary workers, who have partially been deployed for up to one year, in terms of their usual work burdens and stress. However, temporary workers are – just like newly hired staff who hold limited duration contracts – more strongly burdened by flexible personnel deployment policies as they are under far greater obligation to prove their willingness to work flexibly and their capacity to cope with stress, in spite of their precarious employment status and poorer pay. This is due to the aspect of selection and the chances of being taken over into the core workforce at a later date.

(5) Corporate flexibilization policies may engender far more problematic effects for the working conditions of employees in outsourcing or sub-contracting companies. These persons are usually working under considerably less favorable employment conditions (no collective bargaining, no employee interest representation, lower health protection regulations, etc.); they are obligated to flexibly meet the orders placed by supplier companies and are faced with higher employment risks when incoming orders decline.

(6) With regard to the access to in-house further training there were no notable differences evident between full-time and part-time staff in the companies investigated. All in all, however, full-time employees would certainly have more opportunities to improve their chances for upward mobility. In all companies the chances for part-time workers to work their way up to managerial positions were regarded as very low. Temporary workers as well as newly hired staff with fixed term contracts have initially virtually no access to further training measures, apart from brief training activities in occupational safety and health protection issues; these employees are more concerned with coming to terms with the trial period and the possibility of entering the core workforce. There is a lack of clarity as to how the individual employment interests of the employees made available by the temporary agencies are expressed enter the picture in actual practice.

(7) The material presented so far illustrates the fact that the new working hour models companies are practicing are hardly subject to social regulations in their diversity and application: they are either developed together with the works councils under adaptation to the highly flexible needs of the company (or the company's clients) and are partially agreed on outside of the collectively bargained regulations. Generally speaking, the works councils, as far as they are in place, have no more than the possibility of securing minimum demands with regard to securing overtime rates and leisure time compensation, the handling of annual working hour accounts and the design of shift systems. In many instances concrete working hour agreements are also directly concluded with the employees on an individual basis.

The actual working hours, their regularity or irregularity and their predictability are always derived from the company requirements in terms of work volume and the respective flexible willingness to put in the standard and additional working hours. Working hour schemes are therefore subject to social regulations and agreements on a supra-company level to a limited degree, although there is a basic openness for considering individual working hour arrangements.

(8) The direct or indirect influence of employees on decision making processes can therefore be regarded comparatively low. The works councils themselves have hardly any possibilities to exert influence: the process guidelines and specifications to be fulfilled are largely defined externally by the client companies and consequently the scope for taking action that the

supplier's management holds – as the actual negotiation partner of the works councils – is extremely modest. For all types of employment relationships indirect or direct participation is only possible to a limited extent. Such participation is restricted to addressing individual deviations in personnel deployment, slight differences in process sequences and in the remuneration system or at best limited self-determination in work sequence design. The options open to marginal part-time workers are especially low as the formal instances of employee interest representation are primarily attending to the interests of their own members, i.e. the core workforce.

3.2.2 The food retail sector

(1) The working and employment conditions in the retail outlets investigated largely matched the long standing evaluations and assessments of the German food retail sector (Glaubitz 1/1996). According to these assessments, income is comparatively low, especially in the supermarkets; in view of the high share of part-time workers it is evident that many such persons are earning additional money to secure family standards of living. The working conditions are characterized by rising performance pressure mediated via performance linked pay schemes and increasing rationalization pressure, as well as unattractive working hours. Hard manual labor is in evidence in the packaging and labeling area and the outgoing goods sections of the warehouses, as well as in the supermarkets due to the high share of physical logistics tasks that have risen sharply in the past years (filling and re-arranging shelves). Mental stress is caused by the high and unpredictable fluctuations in the work load and the extent of uncertainty attributable to organization changes and causes beyond influence in the upstream and downstream areas in connection with very tight staffing levels.

Initially, connections between company flexibility policies and working conditions are less manifest as the immediate discrimination of different employee groups. It is more an issue that internal flexibility policies generally result in rendering the allocation or position and the duration of working hours unpredictable while the extent and timing of overtime and the additional shifts amount to additional strain. Especially in the supermarkets and outlets it is mainly female employees who bear the main burden given the fact that women account for a major share of the part-time and marginal part-time workers. Moreover, it is the group of marginal part-time employees who are most frequently assigned to the less favorable working hours, work on demand as well as to Saturdays and evening working hours. As the working hours in the supermarkets and outlets are oriented to the company's shop opening times and less to the interests of the employees and specific working hour models (such as team work, with group determined scheduling) are not put to practice, these employees serve as a flexibility buffer within the individual outlets. Therefore it is hardly possible to give consideration to individual working hour interests. In this context it is well to remember that the design of working hours is at least formally a traditional object of collective bargaining in the German food retail sector.

As opposed to the above the working hour regulations in the branch warehouses are relatively systematically shaped by company agreements. While the latter comprise diverse flexibility potentials, they also enable the majority of staff with full-time employee status a relatively regular working schedule, albeit with the proviso to be ready to put in additional shifts or overtime whenever required.

(2) Naturally, the relatively unfavorable working and employment conditions, especially for female part-time workers and marginal part-time workers have developed in an immediate context with the internally and externally oriented flexibility concepts of the outlets. In view

of tight staffing levels, there are very little opportunities for personnel to provide this employee group with additional or higher qualifications by way of training and further vocational training measures. Accordingly, their career opportunities are restricted. Moreover, the marginal part-time workers have not been eligible to social security benefits to date.

(3) Nevertheless, full-time employees and part-time workers are both regarded as part of the core workforce; this is consistently regarded as an aim of personnel policies geared to securing continuity and retaining know-how in the company, also in order to maintain a core of qualitative performance capability. The same applies also to the indirect/formal participation via company employee interest representation. The share of union members in a branch surveyed were two to three times higher in the outlets with a prevalence of female part time employees than in the warehouses where mainly male full-time workers are engaged. Nevertheless, it is particularly the marginal part-time workers who do not have adequate participation opportunities as part of the total workforce due to their short working hours and who are therefore largely excluded from training and specific health protection measures, etc.

(4) Such discrimination is less manifest in the concrete working conditions; occupational safety and health protection and the design of the physical and environment related working conditions are basically equally effective for full-time personnel as well as for marginal part-time workers. In this context it should not be forgotten that health endangering work burdens such as hard physical shelf clearing work or performance pressure is likely to cause relatively few problems for the company given the high fluctuation of marginal part-time workers.

(5) A definite connection is evident in the relationship between external, qualitative flexibility policies and the working conditions of employees in subcontracting companies. The shelf-filling crews as well as transport company employees must settle with considerably lower income levels, they must be especially flexible with regard to their work and they are virtually barred from the retail company's integration, training and career options of the retail company. Moreover, their working and employment conditions are especially unfavorable considering the duration of working hours and the working hour situation of the shelf filling crews who often work late into the night and are usually only informed on a day to day basis when and where their next work assignment will be. As marginal part-time workers they usually are not only eligible for social security and insurance benefits and coverage, but also enjoy less protection by accident insurance policies and receive less attention and care from vocational associations.

3.3 General impacts of flexibility

3.3.1 The automotive supplier industry

Given the differences in the production and workforce structures and the range of the flexibility potentials utilized, the three case studies have already shown that it is hard to derive general and societal effects from the flexibilization strategies pursued in the automotive industry.

(1) Nonetheless, a few indications can be gained from the flexibility processes on a supra-company level and from corporate employment policies. Currently, detailed information on the structure of employment relationships in this sector is not available. However, it can be well assumed that here too the increasing utilization of part-time workers and especially of third party companies will have resulted in considerable shifts in the labor market structures hitherto characterized by unlimited standard working relationships. In the companies studied

the utilization of limited contract work has remained modest and was practiced at best for selection and not for flexibility reasons; nevertheless, from the standpoint of our experience it can not be excluded that increased use will be made of this employment type in view of the seasonal and cyclical order fluctuations in the numerous sub-supplier SMEs involved in the value creation chains. In the case of temporary incoming order declines the reliance on the collectively bargained forms of short-time work represents an important measure for supplier firms and for the stabilization of the labor markets – albeit a measure that was not taken in the investigated companies in the past years. In this way personnel cutbacks that may have been necessary and labor market fluctuation can be kept at a considerably lower level.

In these companies there would seem to be a negligible use of marginal part-time workers and quasi or pro forma self-employed persons and is restricted to simple services such as in the cleaning and maintenance areas or specific R&D and engineering services.

(2) Regarding the employment policies of the companies investigated it can be surmised that that the introduction of flexible working models with annual working hour accounts and considerable overtime buffers has on the one hand achieved considerable reduction of staff cuts and fluctuation and the utilization of short-time work, while on the hand these measures do not generate any positive employment effects; in any case, from this viewpoint such flexible employment policies at least achieve a stabilization of the labor market situation in this sector. At the same time – in the interest of the company and its employees – the retention of qualifications, skills and know-how that would be jeopardized in the case of higher employee fluctuation between companies and/or on the labor market.

This type of employment flexibility is of particular labor market policy relevance in those companies still operating labor intensive (assembly) sequences due to the type of production processes involved and shift models linked with part-time work are practiced. It would appear that this would facilitate the access of female employees to such industrial sectors, although only to jobs with low skill and qualification requirements, thereby contributing to a high volume of employed females.

(3) The systematic utilization of temporary workers may generate a significant impulse for the reorganization of local labor markets. While the reliance on fixed contract work was only marginal in the investigated companies, especially for medium-term employment flexibility, temporary workers, i.e. staff assigned by temporary agencies who are permanently employed by such agencies are now playing a role that is not to be underestimated, especially in the automobile supplier sector. As mentioned, this employment concept is gaining more and more ground in Germany and would appear to offer an important flexibility policy option for suppliers to the automotive industry whose order perspectives are uncertain and whose hiring possibilities are beset with difficulties. The chances for temporary workers themselves of subsequently garnering an unlimited employment contract are modest at best. According to expert opinion such employees are basically difficult to integrate into a company structure, while the outlook for long-term personnel additions are relatively dim in such companies characterized by lean production and uncertain order situations. For employees, this form of temporary work is therefore less a „bridge“ to permanent employment, but at least a selection platform affording access to open positions. Moreover, it can not necessarily be regarded as a „trap“ given the fact that employees at temporary agencies have voluntarily or out of necessity opted for a job entailing continuous changes of workplaces and companies.

Therefore, temporary work is certainly a growing segment on the German labor market, and can already be regarded as a kind of low wage area in view of the considerably lower income level. The effects of this segment in terms of qualification and skills levels (deployable to different qualified workplaces, or only for low skilled tasks) and the employment perspectives (short or long-term perspectives, employment security at the temporary agency as such) would require an analysis of its own.

(4) The measures of outsourcing and subcontracting that are generally practiced throughout the automotive supplier industry may be able to secure a volume of employees significant for labor market policies, at least insofar as the outsourcing activities remain within the country. The relocation of part processes to lower cost foreign countries can also engender stabilizing effects with regard to employment policies, as is the case when suppliers opt for a mixed cost calculation model and retain domestic sites or expand these locations as R&D and engineering centers of international production networks. Inter-company cooperation activities, some of which have been prompted by Federal State initiatives, that are regarded as desirable in the interest of enhancing the flexibility of the entire supplier chain, will generate significant effects in this direction.

All in all, it must not be overlooked that in the context of these outsourcing and decentralization trends the number of small companies units in the automotive supplier industry is growing. For one, this has the effect that such SME usually have to operate in strong dependence on their dominant clients and hold relatively little financial substance; in addition they are standing outside of the collectively bargained regulations and usually have weak, indirect employee interest representation or none at all, a factor that is not unproblematic for the development of industrial relations in this sector. As a result these companies and their employees bear their own risks of economic viability and livelihood and may more readily drop out of the market in critical economic periods and therefore more rapidly burden the labor market with unemployed persons. In the interest of companies and their contribution to labor market policy stability, the sustainability of such flexibility strategies in the value creation chain presupposes that companies will over the medium term be able to calculate with reasonably stable perspectives and that supra-company level cooperation is a mutually enhancing, or two-way process (i.e. with regard to longer term supply and performance agreements, timely notification of orders, but also diversification of the customer range, etc.).

3.3.2 The food retail sector

(1) Flexibility policies in the food retail sector would above all appear to have the effect that employment and the labor market exhibit a strong, general division between areas with full-time work, part-time work and marginal part-time work. There is a trend to more part-time jobs and to an average reduction of working hours per employee, as well as towards the majority of employees being flexibly assigned over the extended weekly opening and working hours. Generally, such policies tend to contribute to an overall stabilization of the number of employees in the food retail sector. In the final instance, however, the incremental decrease in full-time jobs and their replacement by marginal part-time employees will result in a gradual reduction of total work volume. This is also reflected by internal statistics whereby almost half of the marginal part-time employees would be willing to work longer hours, on average twice as long as their current, limited, marginal working relationship permits.

(2) This trend results increasingly in a growing share of persons employed in the food retail sector in having to accept precarious employment relationships as opposed to standard

working conditions and contracts. This is less reflected by their employment law status and more in fact that part-time workers and particularly marginal part-time workers are far more readily assigned to jobs with low qualification requirements. Given the low income level the part-time area is developing into a type of low-wage sector in the labor market. Accordingly the manpower available for this area, favored by the recruiting policies pursued by most of the chains, tends to consist of unskilled and semi-skilled persons. Many companies are concerned with not allowing the fluctuation rates to rise too far, even in the part-time sector, if only in view of the considerable organizational costs that would off-set the flexibility advantages this employee group offers. In spite of this it can be assumed that part-time work or marginal part-time work in the food retail sector does not represent a bridge to jobs with better working hours or to full-time positions. This is all the more the case considering that neither new jobs nor new types of jobs are currently being created in this sector, with the exception of the peripheral developments in home delivery or electronic commerce areas.

The utilization of third party companies that would theoretically offer opportunities for a transitional labor market hardly presents systematic possibilities for employees to gain better access to company-internal full-time employment relationships – at least not in the cases under investigation.

(3) As already mentioned the flexibility policies of the food retail companies hardly generate differentiated effects for occupational safety and health protection in the companies and outlets; different effects were neither discernible for the organization of occupational safety nor for different employee groups. It is evident, however, that the prevailing assignment of female employees as part-time workers or marginal part-time workers is creating a general gender specific segmentation on the labour market. In this low wage sector the majority of employees are women, especially married women with children in need of additional earnings, and the access barriers to these precarious jobs are comparatively low. In many instances, the facilitated employment opportunities obscure the associated disadvantages: the respective employees would like to work longer hours if they were allowed to, all in all the work volume has declined, their employment perspectives are basically very poor and they are at risk of becoming the first targets of cyclical or competition linked rationalization measures.

In order to help members of these employee groups become better integrated into their jobs and society certain regulation factors would be called for that bind such forms of personnel flexibility into a certain framework of integration, stability and perspectives. In this respect, the case studies investigated showed little indication of any such starting points, apart from a few activities by employee interest representation that were strongly focused on company headquarters and branch warehouse (see below), as well as new social policy elements that can be regarded as ambivalent in this context (also below).

At least in some companies in the food retail sector the personnel policy objectives show some indications that the share of part-time workers is not to exceed a certain volume and that these members of staff should be adequately tied to the company. This policy is also being pursued in with the aim of giving greater consideration to the strategically significant concepts of customer and service orientation. Flexible personnel deployment should not only be regarded under the standpoint of cost-efficiency and adaptability at all times. To date, however, there are virtually no signs of better defined regulation, also in the interest of employees, of such forms of work. In general, any forms of regulation are restricted to ad hoc informal agreements concluded between individual employees and management.

3.4 The role of the industrial relations system

3.4.1 The automotive supplier industry

(1) The industrial relations play a significant role for the relationship between flexibility and working and employment conditions in the automotive supplier industry. As already mentioned, there is a strong differentiation here according to branch and the responsible industrial union. In all areas the flexibility latitudes defined by collective bargaining have been considerably extended in the past years. Although – as already mentioned above – these latitudes and their utilization are rated in a contrary manner by employers and the employees, the interview partners at company management and personnel departments confirmed the following: the potentials available within the context of labor legislation, collective agreements and negotiations with the works councils are sufficient to realize the personnel deployment flexibility necessary for company operations. This applies above all to the design of different working hour and shift models, the utilization of different part-time and shift models, the short notice alteration of the duration and allocation of working hours, as well as the availability of overtime and the reduction of overtime buffers.

(2) It is evident here that, in view of the external production and delivery constraints, the works councils are forced to proceed in a very generous manner in granting scope for flexibility and approving overtime and enable solutions that are partially outside of the collective regulations. But also on the part of the unions, flexibility enhancing concessions are made in individual cases such as the extension of standard weekly working hours without wage compensation, as in the case of the fuel tank manufacturer, that was agreed with the union in the interest of improving the competitive strength of the German locations.

(3) This unavoidable willingness to assent to greater personnel policy flexibility in industrial relations is contrasted by the attempts made by the unions and especially the works councils on company and plant level to secure the quality of working conditions in place to date for all workforce groups. In most cases, for example, there are informal or formal agreements whereby flexible labor deployment must not result in poorer working conditions or must be partially compensated for by certain arrangements and regulations. This must be seen in the light of the fact that flexible work utilization usually entails a greater degree of insecurity and unpredictability concerning the type of the workplace, the allocation and duration of working hours as well as work on demand and weekend shifts. For many employees this is associated with a depreciation of their working conditions, and thus their leisure time and private lives, insofar as individual needs and time situations have not been considered in the design of the working hour models. Here, the works councils seek to negotiate with the company management in order put at least a certain set of regulations for employees into place, whether by way of informal means or on the basis of company agreements. Such regulations are oriented to establishing a certain extent of predictability in terms of working hours, certain time periods for the compensation of additional work, upper limits to overtime and additional benefits in some cases. The issue here is to agree to latitudes and methods that would at least enable a partial consideration of individual leisure needs up to more self-determined scheduling for individuals and groups. These activities are guided by the precept that mutual concessions are the only way to secure employee motivation and commitment to flexibility over the longer term.

(4) In the investigated companies it was also apparent that the temporary workers and workers with fixed term contracts were virtually excluded from these relatively modest opportunities for direct participation and indirect/formal employee interest representation. Just like the

works councils' flexibility policies, the work organization regulations are oriented primarily to securing the number and the quality of jobs held by the core workforce.

This exclusion applied all the more so to the employees in outsourcing and subcontracting companies handling supplier firm processes. While their flexibility requirements they must meet are defined externally by the supplier company, the employee interest representation in these companies is usually extremely weak, and is also not assumed by the works council of the client supplier company. In the final instance, decisions on working hours and working conditions in these outsourced processes are made by the constraints of the supply chain, that is by the immediate requirements of the direct clients.

(5) The low significance of industrial relations in companies without effective formal employee interest representation (cf. Düll, Ellguth 1999) was also exemplified by the case of the Mittelstand supplier. As in many other SMEs in the automotive supplier industry, there is no official works council in this company. While in other companies negotiations are conducted – and agreements concluded – between company management and the works councils within the context of the remaining latitudes concerning working hour models, remuneration modifications, occupational safety and health protection issues, here the germanium is merely informed of necessary individual aspects of company operations. All relevant contents of employment relations and work deployment are determined by management without participation of employee interest representation or individually regulated between management and employees. In such companies direct and indirect participation is a marginal issue; employee interests revolve around securing jobs and employment.

(6) Generally it can be assumed that in the companies of the automotive supplier sector the existing scope for designing working hour models and personnel deployment patterns that are defined by legislation, collective bargaining or are given by lack of such bargaining, is subject to relatively little regulation (for German conditions) and exhibits company-specific diversity. In the company or individually agreed rules or patterns relatively limited action is taken against negative repercussions for employees. The influence of industrial relations on flexibility and working conditions revolves around fulfilling the degree of flexibility demanded by customers promptly and at all times; in view of the consistently tight personnel capacities there is hardly any scope left for considering individual employee interests in regular and predictable working hours. Given the high unemployment rates and heatedly discussed issues of further flexibilization and deregulation of labor legislative and collective bargaining regulations, there are currently no indications within the context of industrial relations that would point to more pronounced supra-company level regulations governing personnel flexibility policies practiced in the companies in the interest of employees.

3.4.2 The food retail sector

(1) The significance of industrial relations for wage and working hour related elements of employment and working conditions in the food retail sector were already mentioned. Although the share of union members in the food retail trade is relatively low (approximately 15 %; and even 10 % in the branches surveyed) it is apparent that the influence of union negotiations plays a key role for wage development and for the general framework of employment relationships. On the basis of the legal co-determination regulations (Law on Labor Relations at the Workplace) the local instance of employee interest representation, i.e. the works council, is obligated to monitor the adherence to mandatory occupational safety and

health protection standards. In this function the works council also contributes to ensuring that the minimum working condition standards are fulfilled.

(2) Moreover, works councils in the food retail sector, insofar as they exist, seek to exert an influence on the design of work, working hours and work organization over and beyond their co-determination opportunities. In actual practice, this influence is strongly dependent on the given economic latitudes and the negotiation patterns and modus operandi between company management and works council. The works councils also seek to initiate or assert individual improvements such as better technical equipment for packaging and labeling personnel, or other equipment enhancements (such as containers on wheels). Unions and especially the works councils have undertaken considerable efforts to take influence on corporate flexibility demands and strategies, as well as the various forms of flexibility and have also ventured suggestions for creating scope for flexibility.

The works council in the investigated branch not only helped implement regulations on premiums, remuneration and assistance, old age benefits and the introduction of computer-based inventory and merchandise control systems, but also concluded company agreements on the duration and allocation of working hours and overtime for various departments of the branch.

These regulations, for example, not only define precise working hours and breaks for warehouse areas and fleet operations but also entail flexibility latitudes for setting weekly working hours between 32.5 and 42.5 hours or a daily extension of standard working hours (7.5 hours) by up to two hours. The announcement of deviations in working hours must be made the day before and in the fresh goods area by 13:00 of the same day. In this context overtime hours are demanded without involving the works council, and in the fruit and vegetable area the approval is usually granted subsequently so that the warehouse operations can promptly meet with order fluctuations that arise at short notice. The monthly limit to additional working time is 20 hours (at a total of 163 hours standard working time).

Additional working hours or reduced working hours are recorded on an annual working time account. As far as possible, additional working hours are offset by leisure time. In view of the fact that overtime work is basically the normal procedure it is very important that the works council was able to assert regulated quantitative flexibility in such agreements, whereby considerable additional rates are payable on all overtime hours beyond 42 hours per week, i.e. overtime on Saturdays and for night, weekend and holiday work; additional rates on longer working hours are either paid in the following month or offset with leisure time.

Moreover, the works council is strongly involved in all individual personnel policy issues (hiring, termination and disciplinary measures) and can exert co-determination influence. Apart from the clarification of the development of working conditions throughout the retail chain, the central works council can initiate activities impacting working conditions. In this context there have been initiatives to introduce shorter piecework performance units. At the same time the individual and general influence on concrete working conditions remains limited, as piecework regulations are geared to achieving increased performance per se.

(3) Generally the influence of the works council in the outlets of the investigated branch is very much lower: each individual outlet represents an organizational unit that develops a specific working schedule and working hour duration solution according to the number and structure of the full-time, part-time marginal part-time employment involved. The protection

afforded by collective interest representation is restricted to the formal validity of collectively bargained agreements and the option of obtaining assistance from the local works council; the opportunities for taking an influence on the design of working hours with regard to employee or individual interests are relatively negligible. This reflects the fact that the design of working hours in the outlets – a traditional object of collective bargaining, as mentioned – is being less and less regulated by company agreements or work contracts, so that in actual practice the influence of the unions is virtually non-existent (Kirsch et. al. 1998).

(4) All in all, the influence of unionized employee interest representation in the food retail sector is in a rather defensive position. Price competition and flexibility pressure incrementally weaken ability of unions and works councils to assert their positions, especially given the low levels of unionized personnel. There are companies in the food retail sector with no works councils or very weak ones at best.

There are retail chains, for example, where the warehouses are operating with part-time work accounting for 60 % or 80 % of standard working hours and company agreements have specified that according to (everyday) requirements up to 20 % additional work is to be performed without surcharge; in many instances additional work must be performed without additional pay. Such companies are characterized by relatively high fluctuation rates and total up to 50 % in some outlets and markets.

In such companies in the food retail sector in which flexibility is shouldered entirely by the employees and the influence of works councils is weak there would appear to be a high degree of willingness to compromise on the part of the workforce and the works council with regard to occupational safety and health protection issues. The main employee problem is often only perceived as adherence to the working hours and the need to work unpaid overtime and less in the actual working conditions. Moreover, high fluctuation there has the effect that the workforce does not take action against the negative working conditions; instead, employees withdraw from the poor working conditions after a while by giving notice. On the other hand, however, high fluctuation gives the companies the opportunity to continuously refresh their workforce with young, compromising employees who are willing to cope with stress and work burdens.

Therefore it can be stated that employee interest representation in this sector is generally forced to give in to the employer's flexibility demands with regard to costs and working hours, in order to at least be able to exert some influence in the interest of the employees on the general framework in which the flexibility measures are taken. Here, the issue is also to prevent the external qualitative flexibility measures outsourcing and subcontracting as far as possible in order to protect the jobs for their own members of staff.

4. Conclusions and recommendations

As the investigation findings indicate, the flexibility requirements are very high in both sectors. Generally speaking companies have created adequate latitude to sufficiently utilize measures of flexible employment, personnel deployment and outsourcing – and this was also the case in the companies investigated. These measures serve short term as well as longer term flexibility objectives.

It was generally apparent that the flexibility policies practiced in the case study companies resulted less in a depreciation of concrete working conditions within the companies themselves, and far more strongly impact the external downstream companies and those in lower positions within the value creation chain, especially the outsourcing and sub-contracting companies. The utilization of internal flexibility may also result in less favorable employment and working conditions within the client companies, particularly for part-time workers and marginal part-time workers. Here, female employees are especially affected, as they account for the major share of persons in such employment relationships. The reason for this, among others, is that companies specifically design and utilize concepts such as part-time work, flexible working hours, shift models and overtime arrangements to deal with externally induced order fluctuations. Here, direct or indirect participation or employee interest representation can only take limited influence. Above all, there is very little scope for considering individual time interests in the design of flexibility concepts. Whatever scope may be given is even further restricted by the fact that unions and works councils are forced to largely accept such flexibility measures in view of pressing economic requirements; as the case studies show, the mandatory, legal regulations in place to date offer adequate latitudes for company flexibility policies.

With regard to the question as to how corporate policies should be shaped and designed so as to cope flexibility requirements, yet avoid precarious employment, enhance job security and improve working conditions, and what external factors would encourage such developments, only a few rough conclusions can be drawn –considering the small number of companies investigated and the special characteristics of each case.

(1) As mentioned, companies are dependent on a high degree of flexibility for competitive, process-linked and economic reasons. Therefore they require adequate latitudes for employment and personnel flexibility, both over the short and the long term. For economic reasons, and especially when employee interest representation is weak, corporate strategies tend to place the flexibility burdens on the shoulders of the workforce. These burdens impact primarily those employees who were only employed for flexibility reasons in the first place, or were engaged as sub-contractors and who can not exert any influence on the conditions of their employment. Such policies, however, will hardly encourage high employee performance and commitment flexible work assignments.

A certain degree of regulation in practiced flexibility strategies is required to avoid such precarious employment and working situations from arising, including the associated burdens and performance reducing effects. This would call for a framework on a supra-company or overall company level: a framework of this kind would have to enable sufficient company or department specific flexibility, but, in the interest of employees, should also ensure a minimum of predictability of working hours, employment continuity, company integration and quality of working conditions.

A general framework of regulations could address and operate on different levels, be based on different elements and accord specific latitudes to be defined on individual company levels. The company agreements in which time limits and flexible potentials with regard to the duration and allocation of working hours are regulated for the entire company (including certain notification periods for deviations from normal working hours or shift agreements, as well as rules for additional work and pay supplements, etc.) could be cited as an example here. Framework guidelines on a collectively bargained level could also prove effective; the branch-wide orientation to these guidelines would become concrete reality on the level of each individual company, but an implementation of regulations adhering to generally valid guidelines would be favored. Naturally, this presupposes broad union influence and active works councils in the investigated sectors, although this can hardly be assumed to currently be the case in view of general individualization trends within workforces.

According more self-determination in employee time planning could be another starting point. This could be secured at least on the basis of informal practices and coordination processes between company management and employees or agreements concluded with the works council. Individual latitudes for a partial determination of own working hours could be integrated into various working hour and shift models; in this context, individual latitudes could also be combined with certain new work organization concepts as are being increasingly employed in the automotive supplier industry but have been less used in the food retail sector. This would involve the targeted integration of planning functions in employee tasks scopes and/or the establishment of (partially) autonomous, self-determined work groups. Apart from other productivity enhancing effects an adequate consideration of individual time needs could also be enable within the context of flexible working hour and manpower deployment policies. From the viewpoint of the interviewed personnel and works council experts a policy of give and take and mutual concessions was regarded as the foundation for functioning flexibility. Only when both sides are willing to cooperate and compromise will it be possible to enhance employee willingness to efficiently cope with corporate flexibility demands.

(2) Over the medium term, adequate flexibility in personnel deployment also presupposes qualitative-functional flexibility. In the past, however, this potential has been severely neglected in many companies due to exaggerated, short-term oriented company and corporate targets (shareholder value, lean management, etc.) and also in the face of fierce price competition. Flexibility in general corporate policy conditions is also of tremendous significance for how flexibly companies are able to deploy their personnel – whether in the form of short term engagements or long term adaptation to changing market requirements. Human resource managers refer to greater latitudes in personnel costs and in strategic time windows as essential preconditions for improved functional flexibility that will also secure the viability of existing locations. They also demand more in-house further training, the realization of promising, new work organization concepts, but also personnel policies that encourage employee commitment and loyalty to the company. Thus a „healthy“ blend of continuity and flexibility is an essential factor in employment policies. As a consequence, unduly high fluctuation rates, excessively high shares of marginal part-time workers or loan workers, or disproportionate, exaggerated outsourcing policies – in spite of any short-term flexibility effects – will in the long term stand in the way of effective, motivation enhancing personnel and employment policies.

(3) In terms of the general labor and social law conditions as set forth by the government the indications range from deregulation to an increased Europe-wide protection of employees and a more targeted deployment of social policy interventions.

Naturally, the recent legislative initiatives revolving around low-wage jobs and pro forma or quasi self-employed persons are being debated, and have been faulted from various sides for being out of touch with reality. Proposals have also been ventured whereby various employment promotion measures – frequently perceived as „bridges“ to the labor market – should be more strongly oriented to company practice. For example, job creation measures that are fully government funded could be converted into employment relationships under company conditions and co-financed by the respective companies. As a conclusion it can be stated that government interventions should be more strongly assessed and revised in terms of their focus and coverage if they are to enable flexibility but also ensure employee protection at the same time.

In view of international competition, another essential conclusion in this context to harmonize occupational safety regulations, working hours and shop opening hours Europe-wide. This would provide equal conditions for corporate flexibility policies and thereby create a general homogenization of working conditions for employees.

(4) Last but not least, as a starting point for intervention, it is important to realize that a major share of flexibility requirements leading to precarious employment and stressful working assignments are due to disturbances, discontinuity and disharmony in the supra-company level sequences. This includes extreme fluctuations in delivery requests, uncertainty of disturbances in the sequences, lacking information, but also problems in the measures optimized for individual areas that are not effective for the overall process. Through more intensive and mutual cooperation over and beyond company limits, especially on the basis of jointly developed communication and coordination mechanisms and timely mutual information it would be possible to achieve significant improvements. By „smoothing“ the fluctuations in orders, coordinating deliveries and delivery dates between partners or time coordination inter-company sequences could run a more harmonious course. Above all, the need for short-term personnel flexibility would be reduced and the quality and performance promoting continuity in the processes would be increased. Such supra-company level cooperation strategies could also curb the flexibility pressure in the individual companies and thereby help reduce everyday stress burdens. Extreme flexibility demands that are frequent occurrences today could be restricted or avoided altogether. Moreover, the latitudes for flexible working hours could be kept within adequate bounds or redesigned in terms of personnel policies, namely in the interest of a longer term orientation to more stable and qualified employee structures in the meaning of genuine human resource management, and also in the interest of individuals in precarious jobs seeking secure and qualitatively adequate employment.

(5) In concluding, there are two aspects currently much debated in Germany that are of considerable significance for the question of the social regulation of flexibility processes. These are the corrections and additions to labor law and social security insurance legislation adopted by the new government. In both cases the legislation pertains to regulations on the so-called „quasi self-employed, or pro forma self-employed“ status of gainfully employed individuals. According to the new regulations gainfully employed persons who appear to be self-employed, but are largely dependent on one client similar to regular employees and perform most of their work according to this client's instructions, should be treated as regular

employees. In other words, these persons should pay contributions to social security insurance and be eligible to social benefits resulting from health, old age and unemployment insurance. In view of the diversity in the actual range between employees and self-employed persons these social policy regulations represent a complex change the effects and final shape and form of which can not be discerned at present.

The same applies to the new taxation and social security insurance grouping of persons with low-pay jobs. As a result, many of these persons who were not obligated to pay income tax or social security contributions are now no longer exempt. Both new legislative measures are geared to reversing the declining number of employees paying social security contributions and (once again) secure the financing of social security insurance. However, it can also be assumed that many companies and employees who have utilized these openings to date, will avoid such overly expensive employment forms in future and change their employment policies accordingly. Independent of the still unclarified reach and in view of uncertain figures on the scope and structure of both employee groups, both regulations constitute decisive new general conditions for flexible employment policies, whose repercussions can not be discerned at present.

5. Annexes

5.1 Literature

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5.2 Glossary

1) Marginal part-time workers (Geringfügig Beschäftigte): workers with less than 15 hours weekly and up to DM 630 per month.

2) Quasi or pro forma self-employed individuals (Scheinselbständige): Persons which are considered as self-employed but depend mainly on one client (or that is to say employer) and are working largely in accordance to his directives similar to a normal worker.

3) Temporary worker (Leiharbeitnehmer): staff assigned for a fixed period of time by private organized temporary agencies („Arbeitnehmerüberlassung“) who are permanently employed and monthly paid by such agencies, sometimes also called loan worker.

4) Fixed term contracts: workers with fixed duration employment contracts, that are allowed by law only for one or two times and limited to one year or for special issues.

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